



Banff Green Technologies, Inc

TEL: 86-21-54795870 FAX: 86-21-54795870 Email: sales@banffgt.com
ADDRESS: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd., Minhang Dist., Shanghai 201100, China

Material Safety Data Sheet

★ SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : L-Norvaline

CAS No.: 6600-40-4

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses:

For R & D use only.

Details of the supplier of the safety data sheet

Company: Banff Green Technologies, Inc.

Address: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd.,
Minhang Dist., Shanghai 201100
CHINA

Telephone/Fax: +86 21-54795870

E-mail address: sales@banffgt.com

1.3 Emergency telephone number

Emergency Phone #: +86 21-61995660

★ SECTION 2: Hazards identification

EYES: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

★ SECTION 3: Composition/information on ingredients

Molecular formula: C₅H₁₁NO₂

Molecular Weight: 117.15

Boiling point: 228° C

Density:



Banff Green Technologies, Inc

TEL: 86-21-54795870 FAX: 86-21-54795870 Email: sales@banffgt.com
ADDRESS: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd., Minhang Dist., Shanghai 201100, China

Melting Point: 101° C

★ SECTION 4: First aid measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

★ SECTION 5: Firefighting measures

General Information

Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media

To extinguish fire use water spray, dry chemical, carbon dioxide, or appropriate foam.

★ SECTION 6: Accidental release measures

Small spills/Leaks

Sweep up, then place into a suitable container for disposal. Provide ventilation.

★ SECTION 7: Handling and storage

Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.



Banff Green Technologies, Inc

TEL: 86-21-54795870 FAX: 86-21-54795870 Email: sales@banffgt.com
ADDRESS: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd.,Minhang Dist., Shanghai 201100, China

★ SECTION 8: Exposure controls/personal protection

Engineering Controls

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

★ SECTION 9: Physical and chemical properties

Molecular formula: C₅H₁₁NO₂

Molecular Weight: 117.15

Boiling point: 228° C

Density:

Melting Point: 101° C

★ SECTION 10: Stability and reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Incompatibilities with Other Materials:

Oxidizing agents.

Hazardous combustion or Decomposition products

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

★ SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available.



Banff Green Technologies, Inc

TEL: 86-21-54795870 FAX: 86-21-54795870 Email: sales@banffgt.com
ADDRESS: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd., Minhang Dist., Shanghai 201100, China

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC:

Reproductive toxicity

No data available.

Specific target organ toxicity

Single exposure

No data available.

Specific target organ toxicity

Repeated exposure

No data available.

Aspiration hazard

No data available.

Additional Information

RTECS: No data available.

★ SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Other adverse effects

No data available.

★ SECTION 13: Disposal considerations



Banff Green Technologies, Inc

TEL: 86-21-54795870 FAX: 86-21-54795870 Email: sales@banffgt.com
ADDRESS: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd.,Minhang Dist., Shanghai 201100, China

★ SECTION 14: Transport information

HS Code

2922 49 95

★ SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available.

Chemical Safety Assessment

No data available.

